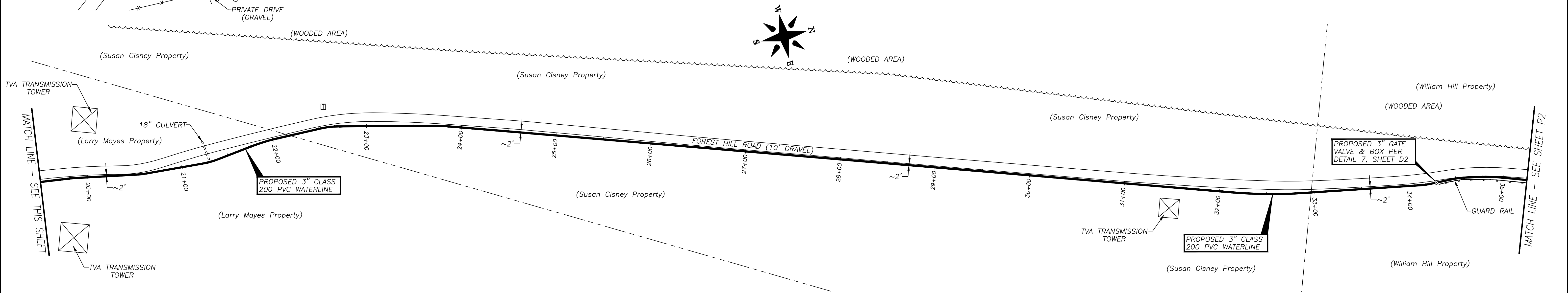


WATERLINE PLAN: STATION 0+00 TO 19+50



WATERLINE PLAN: STATION 19+50 TO 35+25

NOTES:

- PIPE SHALL BE PVC CONFORMING TO ASTM D2241, NSF APPROVED, SDR 21, CLASS 200.
- GATE VALVES SHALL CONFORM TO AWWA C509 AND SHALL HAVE MECHANICAL OR PUSH-ON JOINT ENDS. VALVES SHALL BE RATED FOR 200 PSI WORKING PRESSURE.
- FITTINGS SHALL BE DUCTILE IRON CONFORMING TO AWWA C110. CONCRETE FOR THRUST BLOCKING SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 2,500 PSI.
- DETECTOR WIRE SHALL BE 12 GAUGE SOLID COPPER INSULATED WIRE. ATTACH WIRE TO THE TOP OF THE PIPE WITH DUCT TAPE.
- THE INSTALLED LINE SHALL BE FLUSHED THOROUGHLY, FILLED WITH WATER AND PRESSURIZED TO 200 PSIG FOR 4 HOURS. ANY LEAKAGE OBSERVED SHALL BE REPAIRED AND THE TEST REPEATED UNTIL THE ENGINEER DETERMINES THAT THE LINE IS ACCEPTABLE.
- PRIOR TO BEING PLACED IN SERVICE, THE LINE SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651. THE CONTRACTOR SHALL PERFORM BACTERIOLOGICAL TESTING OF THE DISINFECTED LINE AND DELIVER TEST RESULTS INDICATING ACCEPTABLE DISINFECTION TO THE DISTRICT.
- THE CONTRACTOR SHALL KEEP THE WORK AREA CLEAN AND ORDERLY AT ALL TIMES. ALL TRASH AND DEBRIS SHALL BE PICKED UP AND REMOVED FROM THE JOB SITE AT THE END OF EACH DAY.
- DRIVEWAYS OR OTHER ACCESSWAYS REQUIRING EXCAVATION SHALL BE BACKFILLED COMPLETELY WITH GRAVEL AND SHALL BE COMPLETED WITHIN ONE WORKING DAY. IN NO EVENT SHALL SUCH AREAS REMAIN IMPASSABLE OVERNIGHT.
- CONTRACTOR SHALL COORDINATE WORK ON PRIVATE PROPERTY WITH THE PROPERTY OWNER, DISTURBANCE OF EXISTING FENCES SHALL BE HELD TO A MINIMUM, AND ANY FENCE DAMAGED BY CONSTRUCTION SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL CONTACT KY. UNDERGROUND PROTECTION, INC. AT (800) 752-6007, AS WELL AS OTHER UTILITIES, PIPELINE COMPANIES, ETC. POTENTIALLY HAVING UNDERGROUND LINES, UTILITIES, STRUCTURES, ETC. IN THE AREA FOR VERIFICATION AND LOCATION PRIOR TO EXCAVATION.
- THE DISTRICT SHALL BE RESPONSIBLE FOR OBTAINING AND RECORDING ALL EASEMENTS PRIOR TO CONSTRUCTION ON ANY PRIVATE PROPERTIES. CONTRACTOR SHALL VERIFY EASEMENTS AND RIGHT OF ENTRY BEFORE BEGINNING CONSTRUCTION.

LEGEND

- PROPOSED WATER LINE
- EXISTING WATER LINE
- PROPERTY LINE
- RESIDENTIAL METER
- PHONE PEDESTAL
- POWER/TELEPHONE POLE
- VALVE
- FLUSH HYDRANT

UTILITY CONTACTS

- Ky. Underground Protection *811
- South Central Bell (800) 351-1111
- Pennyrite Rural Electric Coop. (270) 886-2555
- Kentucky Utilities (270) 424-5043

MCGHEE ENGINEERING, INC.
 Phone: (270) 483-9985 202 South Ewing Street
 Fax: (270) 483-9986 P. O. Box 267
 www.mcgeeengineering.com Guthrie, Kentucky 42234

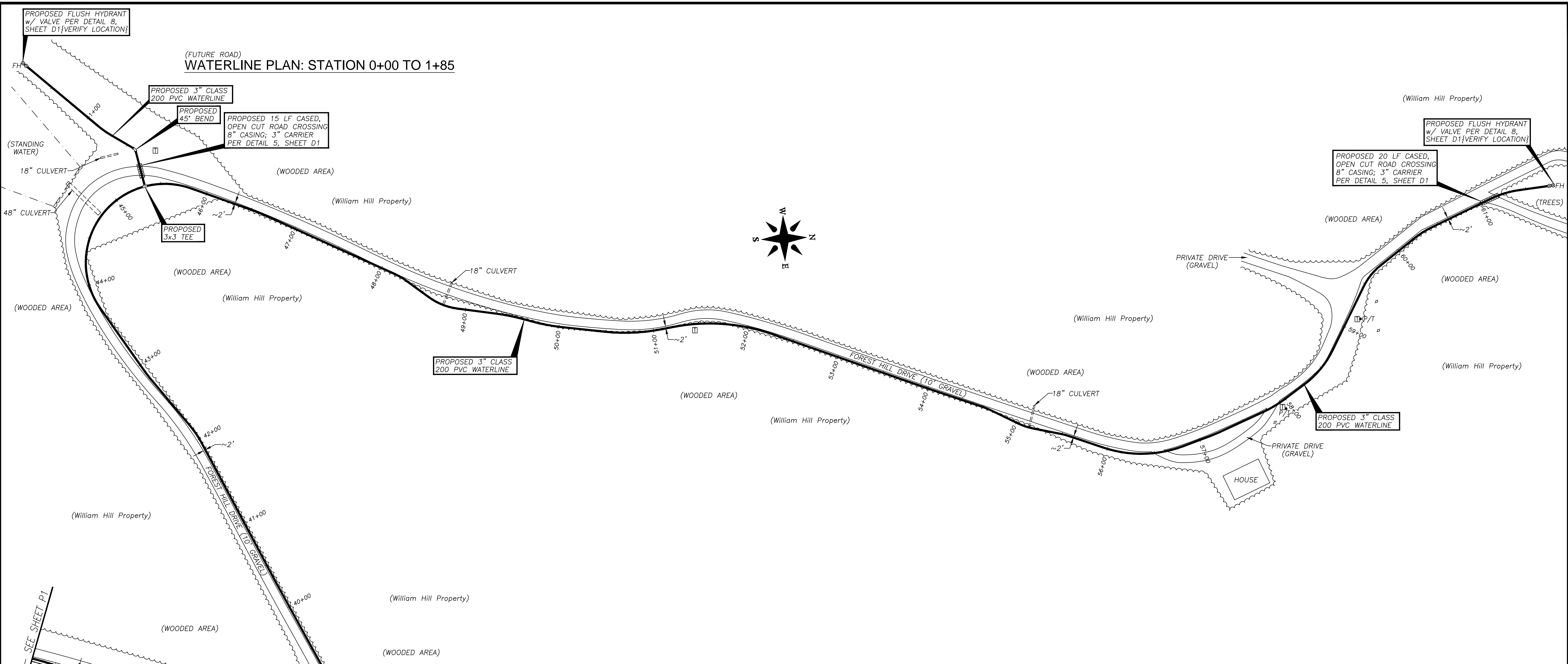
April 1, 2013
 STATE OF KENTUCKY
 CHRIS WILCUTT
 21523
 LICENSED PROFESSIONAL ENGINEER
 Chris Wilcutt, P.E.

MUHLENBERG COUNTY WATER DISTRICT
 P. O. Box 348 Phone: (270) 338-1300
 Greenville, Kentucky 42345 Fax: (270) 338-7494

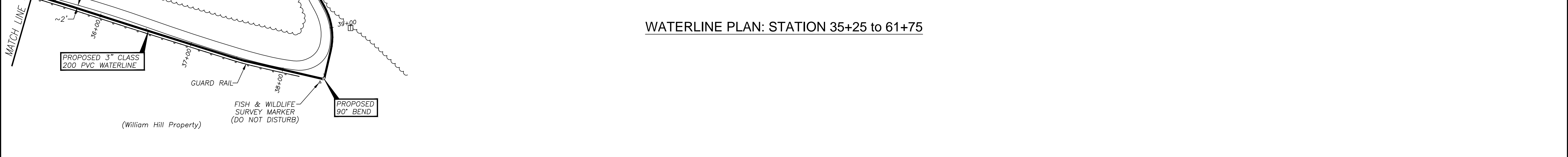
McPherson Road & Forest Hill Drive WATERLINE PLAN

Date	Prep. By	Scale	File No.	Sheet
MAR. 2013	C. Wilcutt	1" = 50'	0698	P1

(FUTURE ROAD)
WATERLINE PLAN: STATION 0+00 TO 1+85



WATERLINE PLAN: STATION 35+25 TO 61+75



NOTES:

- PIPE SHALL BE PVC CONFORMING TO ASTM D2241, NSF APPROVED, SDR 21, CLASS 200.
- GATE VALVES SHALL CONFORM TO AWWA C509 AND SHALL HAVE MECHANICAL OR PUSH-ON JOINT ENDS. VALVES SHALL BE RATED FOR 200 PSI WORKING PRESSURE.
- FITTINGS SHALL BE DUCTILE IRON CONFORMING TO AWWA C110. CONCRETE FOR THRUST BLOCKING SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 2,500 PSI.
- DETECTOR WIRE SHALL BE 12 GAUGE SOLID COPPER INSULATED WIRE. ATTACH WIRE TO THE TOP OF THE PIPE WITH DUCT TAPE.
- THE INSTALLED LINE SHALL BE FLUSHED THOROUGHLY, FILLED WITH WATER AND PRESSURIZED TO 200 PSIG FOR 4 HOURS. ANY LEAKAGE OBSERVED SHALL BE REPAIRED AND THE TEST REPEATED UNTIL THE ENGINEER DETERMINES THAT THE LINE IS ACCEPTABLE.
- PRIOR TO BEING PLACED IN SERVICE, THE LINE SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651. THE CONTRACTOR SHALL PERFORM BACTERIOLOGICAL TESTING OF THE DISINFECTED LINE AND DELIVER TEST RESULTS INDICATING ACCEPTABLE DISINFECTION TO THE DISTRICT.
- THE CONTRACTOR SHALL KEEP THE WORK AREA CLEAN AND ORDERLY AT ALL TIMES. ALL TRASH AND DEBRIS SHALL BE PICKED UP AND REMOVED FROM THE JOB SITE AT THE END OF EACH DAY.
- DRIVEWAYS OR OTHER ACCESSWAYS REQUIRING EXCAVATION SHALL BE BACKFILLED COMPLETELY WITH GRAVEL AND SHALL BE COMPLETED WITHIN ONE WORKING DAY. IN NO EVENT SHALL SUCH AREAS REMAIN IMPASSABLE OVERNIGHT.
- CONTRACTOR SHALL COORDINATE WORK ON PRIVATE PROPERTY WITH THE PROPERTY OWNER, DISTURBANCE OF EXISTING FENCES SHALL BE HELD TO A MINIMUM, AND ANY FENCE DAMAGED BY CONSTRUCTION SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL CONTACT KY. UNDERGROUND PROTECTION, INC. AT (800) 752-6007, AS WELL AS OTHER UTILITIES, PIPELINE COMPANIES, ETC. POTENTIALLY HAVING UNDERGROUND LINES, UTILITIES, STRUCTURES, ETC. IN THE AREA FOR VERIFICATION AND LOCATION PRIOR TO EXCAVATION.
- THE DISTRICT SHALL BE RESPONSIBLE FOR OBTAINING AND RECORDING ALL EASEMENTS PRIOR TO CONSTRUCTION ON ANY PRIVATE PROPERTIES. CONTRACTOR SHALL VERIFY EASEMENTS AND RIGHT OF ENTRY BEFORE BEGINNING CONSTRUCTION.

LEGEND

PROPOSED WATER LINE	—————
EXISTING WATER LINE	- - - - -
PROPERTY LINE	—————
RESIDENTIAL METER	■
PHONE PEDESTAL	□
POWER/TELEPHONE POLE	● P/T
VALVE	⊙
FLUSH HYDRANT	⊙ FH

UTILITY CONTACTS

Ky. Underground Protection	#811
South Central Bell	(800) 351-1111
Pennyrite Rural Electric Coop.	(270) 886-2555
Kentucky Utilities	(270) 424-5043

MCGHEE ENGINEERING, INC.
 Phone: (270) 483-9985 202 South Ewing Street
 Fax: (270) 483-9986 P. O. Box 267
 www.mcgeeengineering.com Guthrie, Kentucky 42234

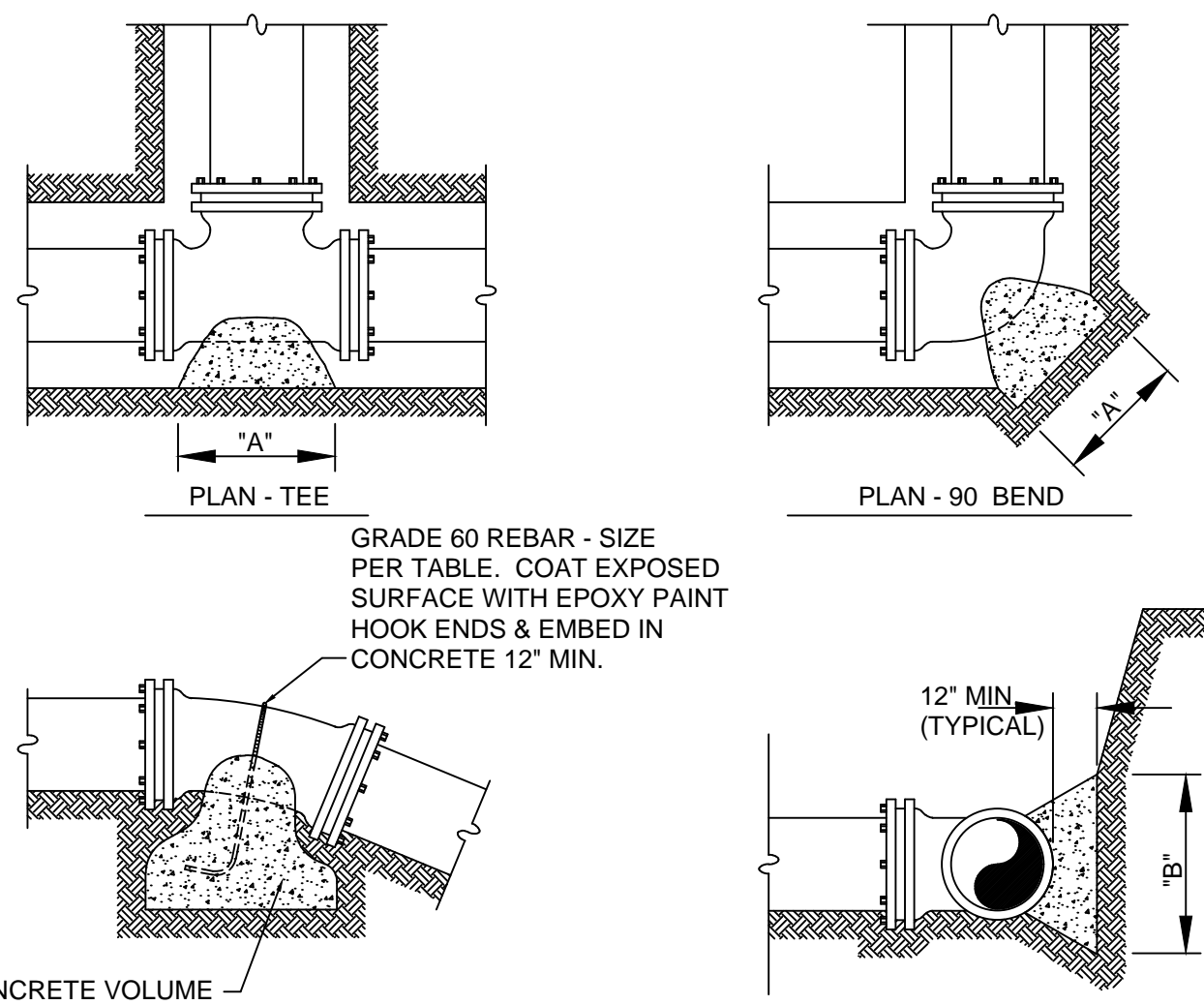
April 1, 2013

 Chris Wilcutt, P.E.

MUHLENBERG COUNTY WATER DISTRICT
 P. O. Box 348 Phone: (270) 338-1300
 Greenville, Kentucky 42345 Fax: (270) 338-7494

**Forest Hill Drive
 WATERLINE PLAN**

Date	Prep. By	Scale	File No.	Sheet
MAR. 2013	C. Wilcutt	1" = 50'	0698	P2



PIPE SIZE	MINIMUM BEARING AREA ("A"x"B") IN SQUARE FEET					MIN. CONC. VOLUME IN CUBIC FEET	REBAR SIZE	
	TEE OR DEAD END	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND			
2", 3" & 4"	1.0	1.5	1.0	1.0	1.0	2	1.5	#4
6"	2.5	3.0	2.0	1.0	1.0	5	3	#4
8"	4.0	5.5	3.0	1.5	1.0	8	5	#5
10"	6.0	8.5	4.5	2.5	1.5	13	9	#5
12"	8.5	12.0	6.5	3.0	2.0	18	12	2-#5
16"	15.0	21.5	11.5	6.0	3.0	32	21	2-#6

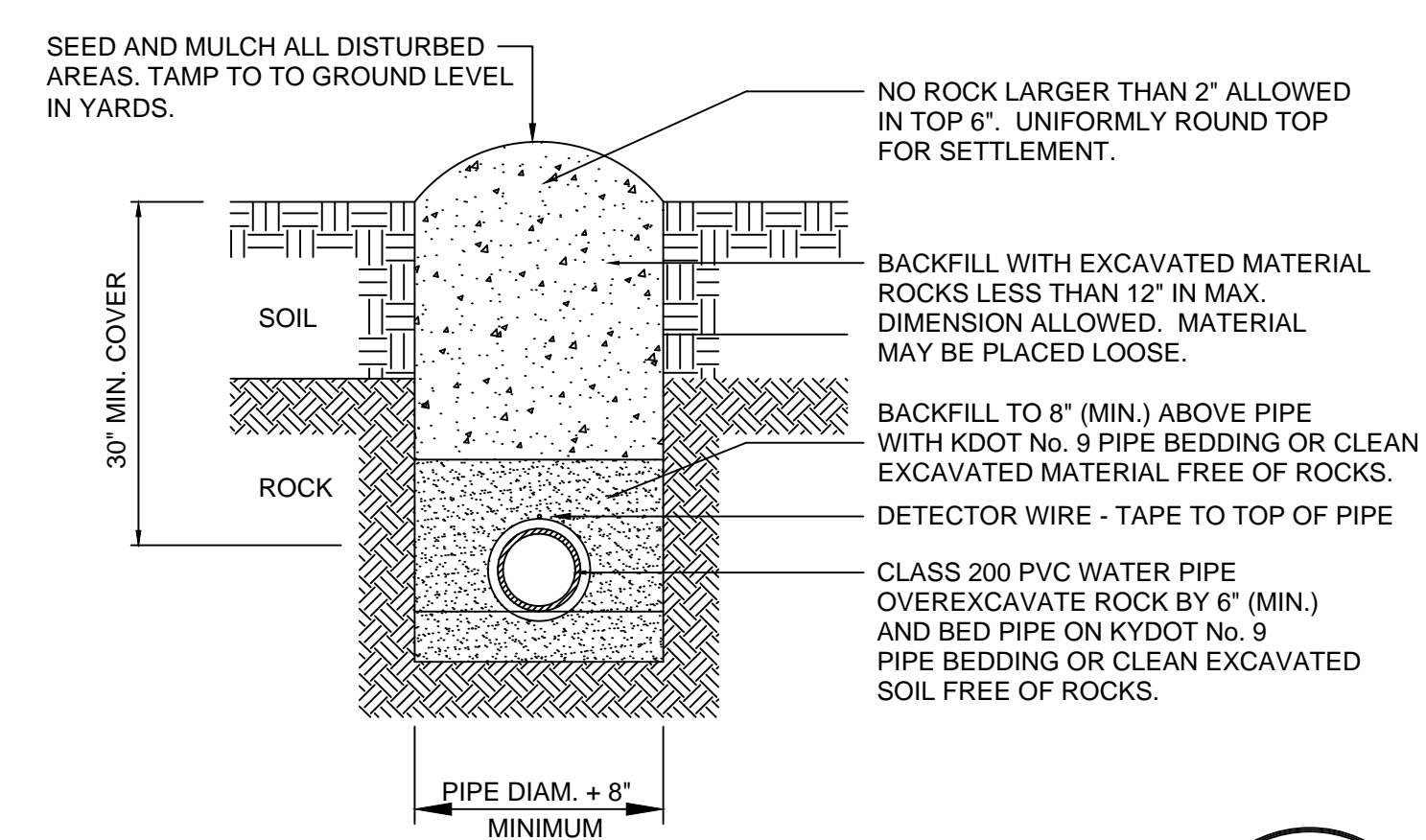
- NOTES
- CONCRETE FOR THRUST BLOCKS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2,500 PSI.
 - KEEP CONCRETE CLEAR OF JOINTS, GLAND BOLTS, ETC.
 - CONCRETE THRUST BLOCKS SHALL BE CAST AGAINST SOUND, UNDISTURBED EARTH.
 - BEARING AREAS ARE BASED ON 4,000 PSF SOIL BEARING CAPACITY. WEAKER SOILS MAY REQUIRE LARGER THRUST BLOCKS.
 - THRUST BLOCK BEARING AREAS MAY BE REDUCED IN ROCK SUBJECT TO ENGINEER'S APPROVAL.
 - VALVES REQUIRE ONE REBAR STRAP AS SHOWN IN THE TABLE AT EACH END OF THE VALVE.
 - WHERE CONTRACTOR SUSPECTS THAT UNSUITABLE BEARING CONDITIONS EXIST, NOTIFY ENGINEER PRIOR TO CASTING THRUST BLOCK.

CONCRETE THRUST BLOCKS

NOT TO SCALE

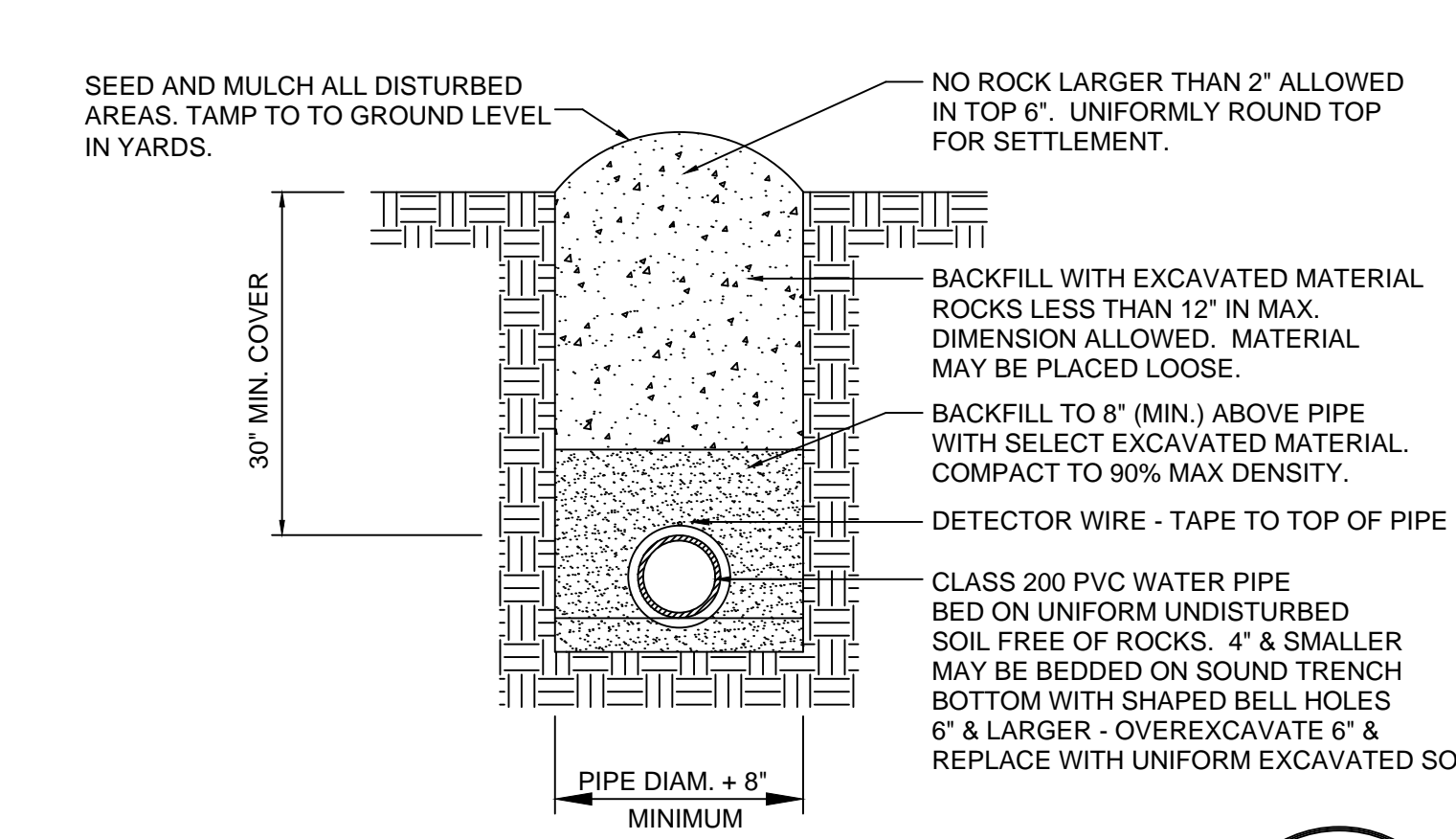
BEDDING & BACKFILL - ROCK

NOT TO SCALE



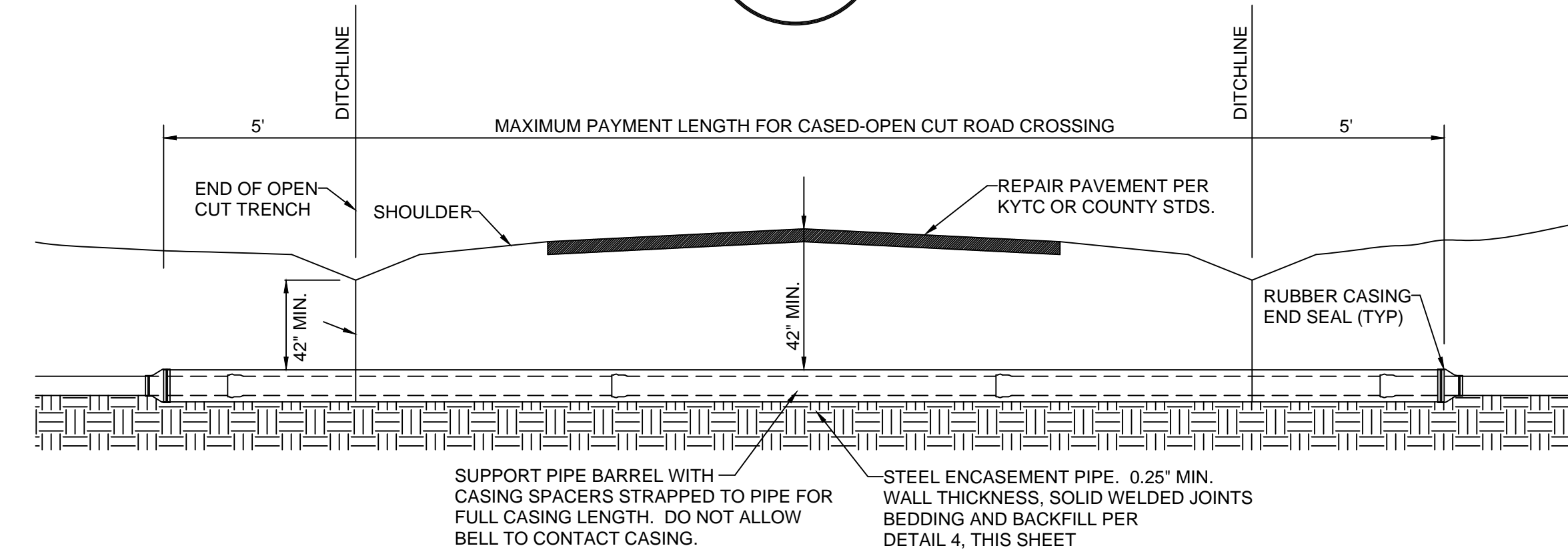
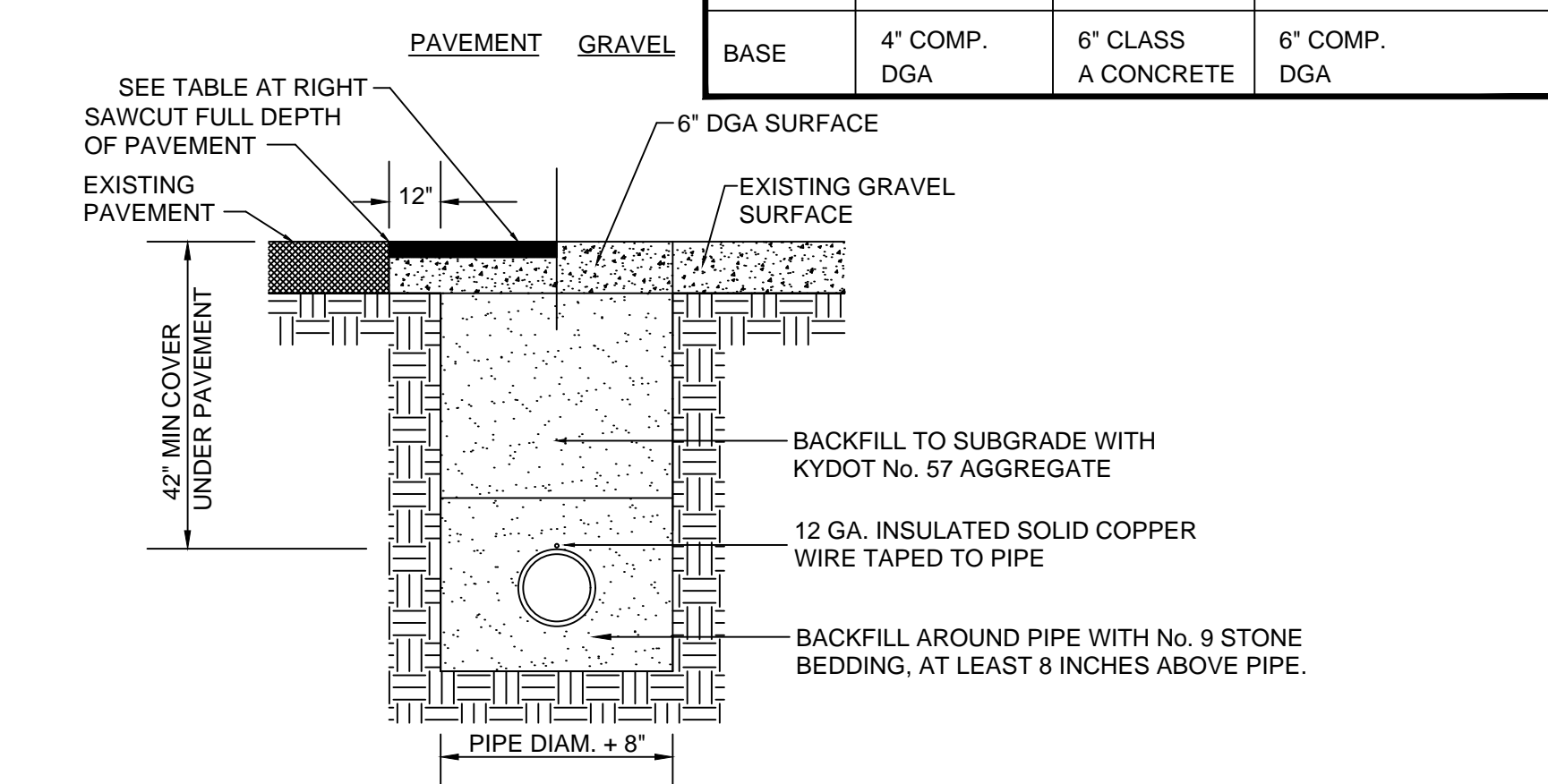
BEDDING & BACKFILL - SOIL

NOT TO SCALE



PAVEMENT BACKFILL & REPAIR

NOT TO SCALE

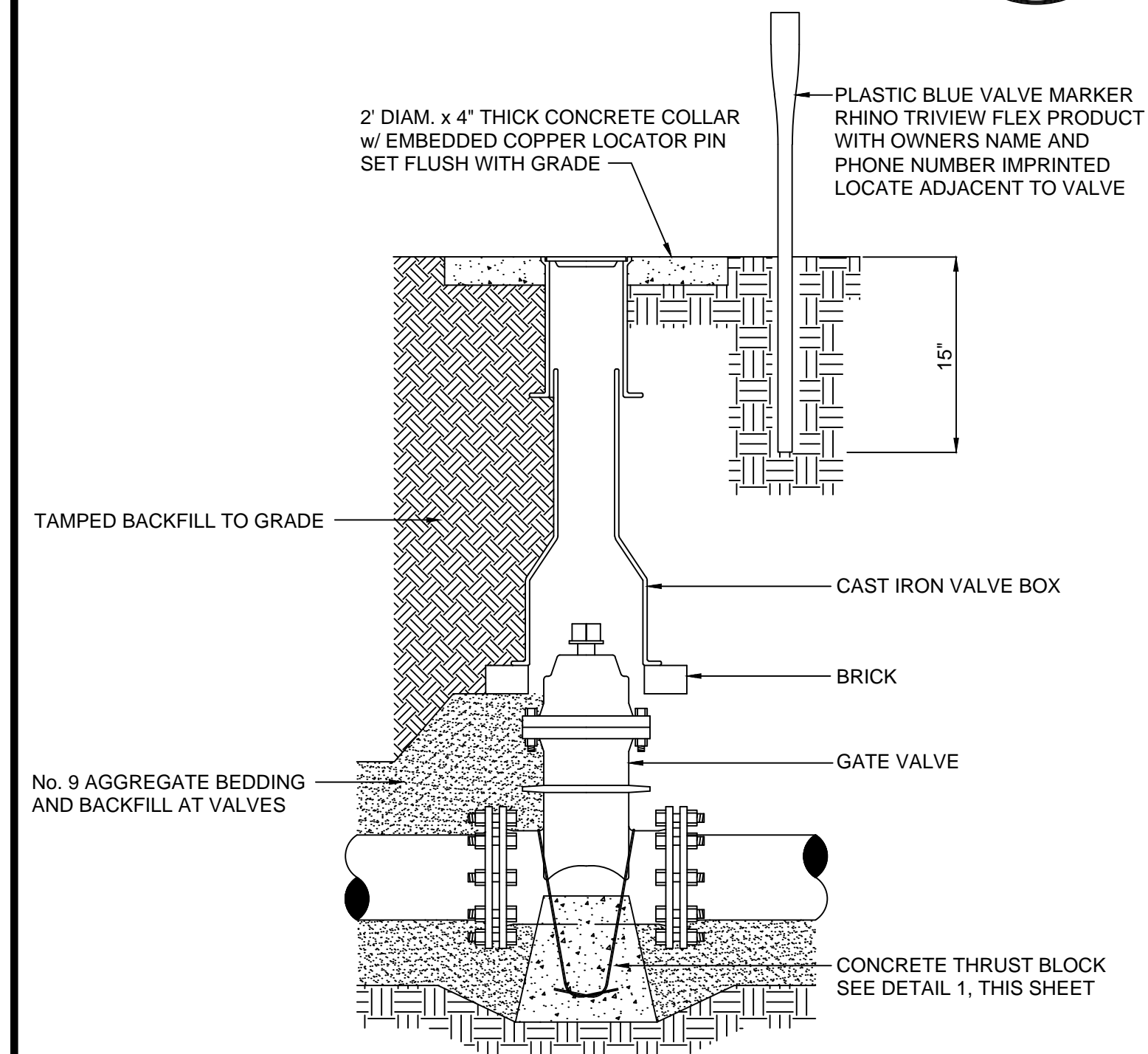
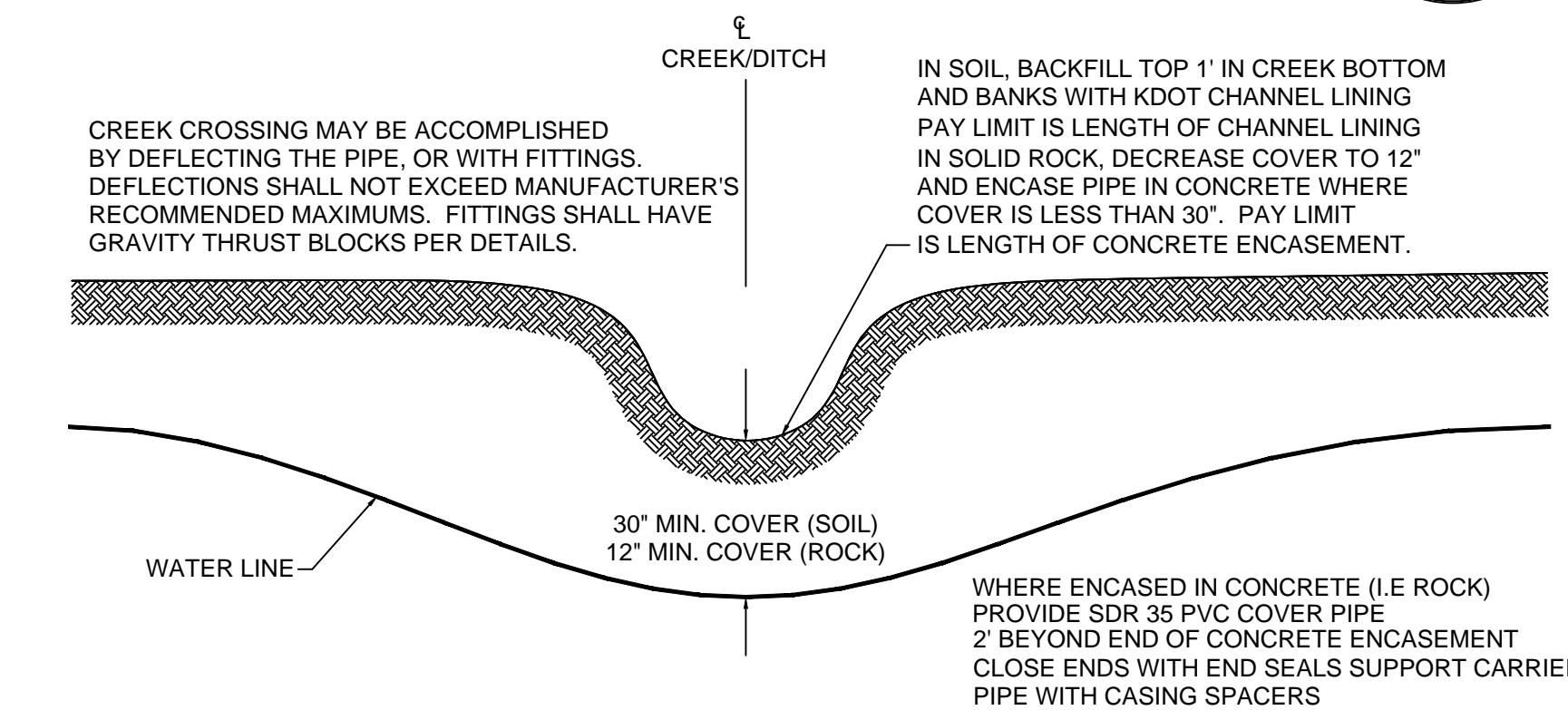


CASED-OPEN CUT ROAD CROSSING

NOT TO SCALE

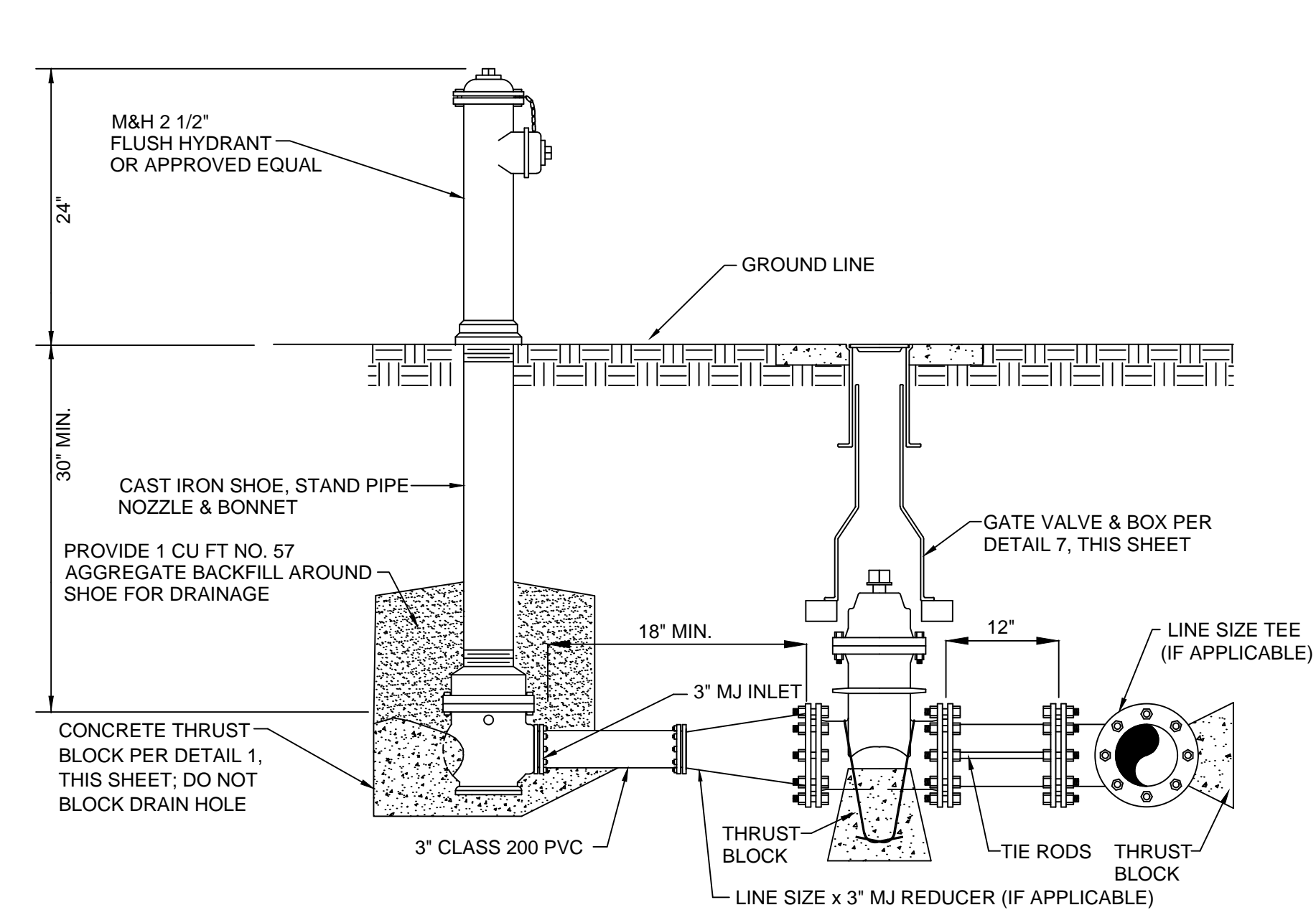
SHALLOW DITCH CROSSING

NOT TO SCALE



VALVE SETTING DETAIL

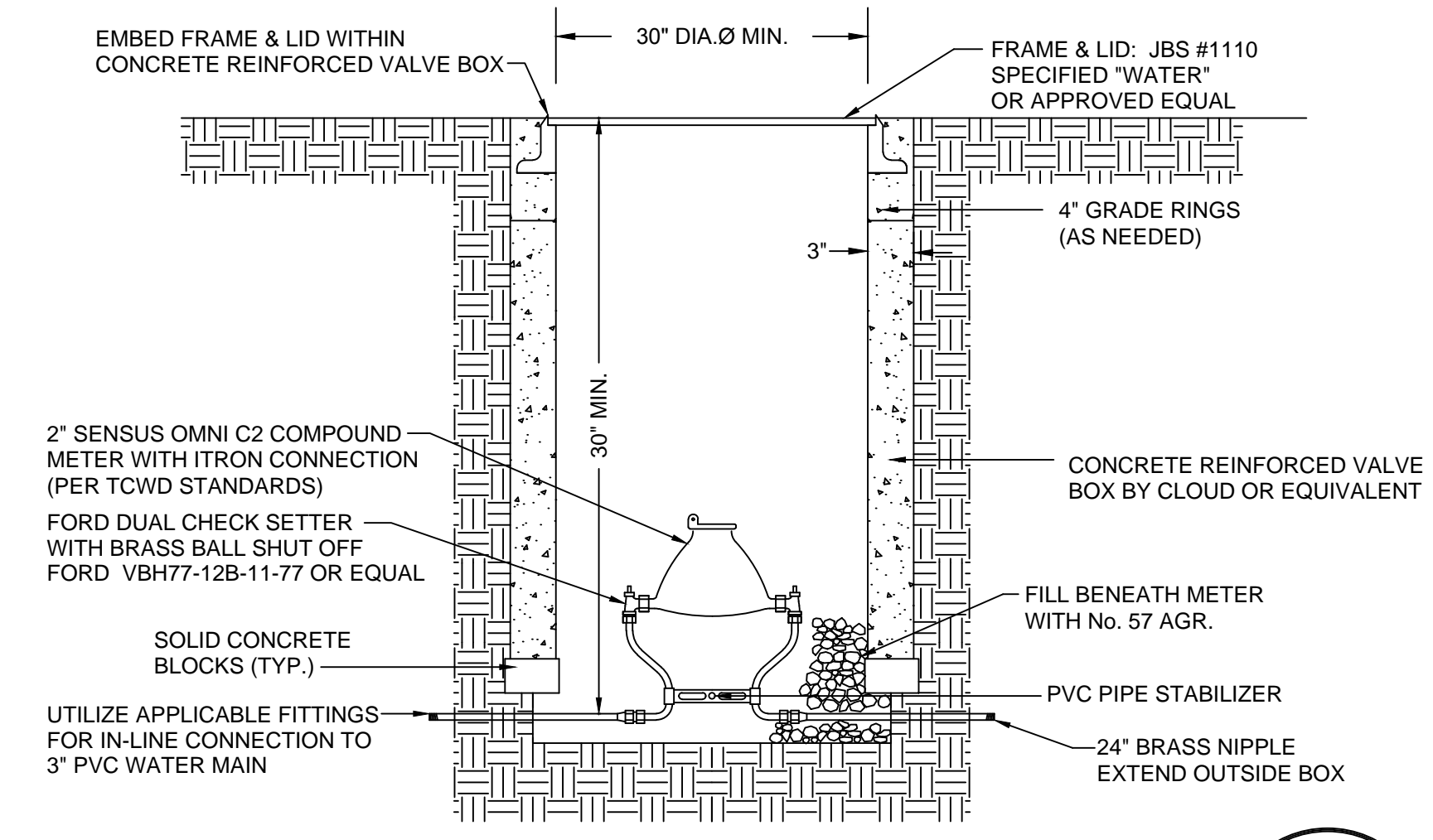
NOT TO SCALE



- THIS SIZE HYDRANT IS APPLICABLE ONLY FOR 4-INCH AND 3-INCH LINE EXTENSIONS.
- FLUSHING HYDRANTS ARE INTENDED FOR WATER LINE FLUSHING ONLY AND ARE NOT INTENDED OR SUITABLE FOR FIRE PROTECTION.
- COORDINATE LOCATION IN THE FIELD WITH THE ENGINEER/OWNER PRIOR TO CONSTRUCTION.

SMALL HYDRANT w/ VALVE

NOT TO SCALE



TCWD MASTER METER SETTING

NOT TO SCALE

	MUHLBERG COUNTY WATER DISTRICT P. O. Box 348 Greenville, Kentucky 42345 Phone: (270) 338-1300 Fax: (270) 338-7494			
	McPherson Road & Forest Hill Drive WATERLINE DETAILS			
Date	Prep. By	Scale	File No.	Sheet
MAR. 2013	C. Wilcutt	As Shown	0698	D1

MCGHEE ENGINEERING, INC.

Phone: (270) 483-9985
 Fax: (270) 483-9986
 www.mcgeeengineering.com

202 South Ewing Street
 P. O. Box 267
 Guthrie, Kentucky 42234